

Appl. No. 10/807,724

Amdt. Dated September 23, 2005

Reply to Office Action of August 31, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

1. (Cancelled).
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (Cancelled).
6. (Currently Amended) A generator comprising:
a rotor frame;
a first and second of core poles coupled to the rotor frame;
a coil wound around the first core pole; and
a wedge shaped member positioned between the first core pole and the second core pole to support the coil on the first core pole as the rotor frame is rotated, the wedge-shaped member including
a first plate abutting the first core pole, the first plate including a first surface, a second surface, and one or more passages extending therebetween,
a second plate abutting the second core pole, and
one or more cross members coupled between and substantially perpendicular to the first plate and the second plate; and
a bonding material impregnated through at least one of the first plate passages and coupling the wedge-shaped member to the coil.

Appl. No. 10/807,724

Amdt. Dated September 23, 2005

Reply to Office Action of August 31, 2005

7. (Original) The generator of claim 6 wherein the rotor frame is substantially cylindrical and has a first axis of rotation, the first and second of core poles extending radially from the rotor frame along the length of the rotor frame.

8. (Original) The generator of claim 6 further comprising a second coil wound around the second core pole.

9. (Original) The generator of claim 6 wherein the first core pole has a core pole tip that is wider than the core pole, the core pole tip configured to secure the wedge-shaped member in place.

10. (Original) The generator of claim 6 wherein the wedge-shaped member has a substantially trapezoidal cross-sectional area.

11. (Original) The generator of claim 10 further comprising a third plate coupled between a first edge of the first plate and a first edge of the second plate, the third plate positioned along the short side of the trapezoidal wedge-shaped member to abut the rotor frame.

12. (Original) The generator of claim 11 wherein the third plate has a curvature that conforms to the rotor frame.

13. (Original) The generator of claim 6 wherein the first plate, the second plate and the one or more cross members define one or more cavities within the wedge-shaped member.

14. (Cancelled).

Appl. No. 10/807,724

Amdt. Dated September 23, 2005

Reply to Office Action of August 31, 2005

15. (Currently Amended) The generator of claim [[14]]6 wherein the coil wound around the first core pole is restrained by a bonding material impregnated between the coil and the one or more passages through the first plate.

16. (Original) The generator of claim 6 further comprising one or more bands configured to couple around the circumference of the rotor frame and secure the wedge-shaped member to the rotor frame.

17. (Currently Amended) A generator comprising:
a substantially cylindrical rotor frame;
a plurality of core poles coupled around the rotor frame, the plurality of core poles extending radially from the rotor and having core pole tips that are wider than the core poles;

a coil wound around a first core pole of the plurality of core poles; and
a wedge-shaped member positioned between the first core pole and a second core pole to support the coil on the first core pole as the rotor frame is rotated, the wedge-shaped member including

a first plate having a plurality of through-holes, the first plate abutting the first core pole, the first plate including a first surface, a second surface, and one or more passages extending therebetween,

a second plate abutting the second core pole,

a third plate having a first longitudinal edge and a second longitudinal edge, the first longitudinal edge of the third plate coupled along a first longitudinal edge of the first plate and the second longitudinal edge of the third plate coupled to a first longitudinal edge of the second plate, and

one or more reinforcing cross members coupled between and substantially perpendicular to a second longitudinal edge of the first plate and a second longitudinal edge of the second plate to the third plate; and
a bonding material impregnated through at least one of the first plate passages and coupling the wedge-shaped member to the coil.

Appl. No. 10/807,724

Amdt. Dated September 23, 2005

Reply to Office Action of August 31, 2005

18. (Original) The generator of claim 17 wherein the second longitudinal edge of the first plate is retained by the core pole tip of the first core pole and the second longitudinal edge of the second plate is retained by the core pole tip of the second core pole.

19. (Original) The generator of claim 17 wherein the third plate is curved to conform to the cylindrical rotor frame.

20. (Original) The generator of claim 17 wherein the coil wound around the first core pole is restrained by a bonding material impregnated between the coil and the one or more passages through the first plate.